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| 08/877,728      | 06/18/1997  | HIROTO OKAWARA       | 35.C12127           | 6347             |

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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT PAPER NUMBER

2612

DATE MAILED: 08/09/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

08/877,728

**Applicant(s)**

OKAWARA, HIROTO

**Examiner**

LUONG T NGUYEN

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10,13-28,31-33,35-37,40-45 and 47-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-28,31-33,35-37,40-41, 48-50 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-10,13, 42-45, 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/24/2004 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-7, 9-10, 13, 42-45, 47 filed on 4/30/2004 have been fully considered but they are not persuasive.

In re pages 20-21, Applicant argues that Kawanami and Shimizu patents fail to disclose or suggest the feature of a camera that includes the claimed motion direction setting means which is arranged in the camera body and comprises a setting switch that operates on a displayed predetermined menu on said display means to select a desired setting item from among a plurality of items of the displayed predetermined menu, and sets a condition regarding a motion direction of a lens unit.

In response, regarding claim 1, Applicant amended claim 1 with the limitation "wherein said motion direction setting means arranged in said camera body comprises a setting switch that operates on the predetermined menu displayed on said display means to select a desired setting item from among a plurality of items of the predetermined menu displayed on said display means

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by said menu function control unit and sets a condition regarding the motion direction of a lens unit.” The examiner considers that claim 1 as amended still does not distinguish from Kawanami patent in view of Shimizu patent. Kawanami discloses motion direction setting means as selection means 63, which is provided in on the camera body 53 for deciding the driving direction of zoom lens unit 52 (figure 5, column 5, lines 50-56); and display means disclosed as display device 21, which is provided in camera body 3 and allows the operator to visually know the state of each of various control actions of the camera (figure 2, column 3, lines 10-25).

Kawanami does not disclose that the menu setting switch is operated by the user and does not disclose a setting switch that operates on the predetermined menu displayed on said display means to select a desired setting item from among a plurality of items of the predetermined menu displayed on said display means by said menu function control unit and sets a condition regarding the motion direction of the lens unit; and displaying an image picked up by said image pickup means. However, this feature is taught by Shimizu. Shimizu discloses display 62 for displaying an image picked up by image sensor 2 (figure 1, column 4, lines 31-38). And Shimizu discloses a menu displayed on a display screen as a setting means to permit a user of a camera to operate thereupon to select various camera operating conditions from among a plurality of items displayed on a predetermined menu, such as the speed at which the focal length of the camera lens is moved when a zooming operation is performed, therefore a setting switch is inherently included in order to let the user to select various camera condition (column 5, lines 36-46).

In re page 22, Applicant argues that Takahashi and Haraguchi patents fail to disclose or suggest a feature where the inhibition means also causes/permits lens control means when rotation of a ring member of the lens again is detected during the predetermined period, as disclosed and claimed in the present application.

In response, regarding claim 42, Applicant amended claim 42 with the limitation “inhibition means for inhibiting said control means from performing the motion/stop control during a predetermined period when said detection means detects a stop of rotation of the ring member, and for causing said control means to continue movement of said magnification lens group when said detection means detects rotation of said ring member during the predetermined period.” The examiner considers that claim 42 as amended still does not distinguish from Takahashi patent in view of Haraguchi et al. patent. Haraguchi et al. disclose by having zoom motor 5 continue to rotate in the reverse direction for t msec after detection of POS=9, and by thereafter rotating motor 5 in the forward direction, motor 5 can be stopped precisely at POS=A under the condition that backlash on the forward rotation side is removed (column 23, line 58 through column 24, line 9).

In re page 23, Applicant argues that Takahashi fails to disclose or suggest the feature where motion start/stop control is controlled based on the set sensitivity, as disclosed and claimed in the present application.

In response, regarding claim 44, the Applicant amended claim 44 with the claim limitation “change means for changing a sensitivity of the motion start/stop control of said control means relative to a detection result of said detection means so that said control does not

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effect the motion start/stop control until an amount of rotation of said ring member, corresponding to the sensitivity, is detected by said detection means." The Examiner considers that the claim as amended still does not distinguish over Takahashi patent. Takahashi discloses that the rotation speed of the PZ motor 34 will be changed so as to properly adjust the zooming speed (column 10, lines 1-11).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 44-45 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi (US 5,159,370).

Regarding claim 44, Takahashi discloses an image pickup apparatus comprising a ring member (51) disposed concentrically about a lens optical axis of a lens unit, a detection means for detecting a change amount of rotation of the ring member (column 9, lines 1-14), a control means for determining motion direction and speed of a magnification lens group in accordance with an output of the detection means and performing motion start/stop control of the magnification lens group along the optical axis (column 9, lines 15-49), and a change means for changing a sensitivity motion start/stop control of said control means relative to a detection result of said detection means (column 9, lines 21-29) so that said control does not effect the motion start/stop control until an amount of rotation of said ring member, corresponding to the sensitivity, is detected by said detection means (column 10, lines 1-11).

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Regarding claim 45, Takahashi discloses that the lens group is removably and exchangeably mounted on a main body of the image pickup apparatus (column 2, line 46).

Regarding claim 47, Takahashi discloses that the change means changes the motion speed of the magnification lens group relative to an output of the detection means (column 9, lines 21-29).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7 and 9-10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawanami (US 5,278,601) in view of Shimizu (US 5,485,200).

Regarding claim 1, Kawanami disclose an image pickup apparatus having a camera body (3, figure 3) and a lens unit (15, figure 3), comprising a ring member (51, figure 5) for driving a lens (52); a detection means (55, 56) for detecting a change amount of rotation of the ring member; a control means (59) arranged in the lens unit for performing motion/stop control of the lens group along an optical axis in accordance with a detection result by the detection means; and motion direction setting means (63) providing in camera body for a user to set a desired motion direction of the lens group relative to the rotation direction ring member, wherein the motion direction setting means arranged in said camera body comprises character display means, menu

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setting means, display means (21), a menu function control unit for controlling the character display means in accordance with the operation state of the menu setting means, and for displaying a predetermined menu on a display screen of the display means (column 3, lines 15-17).

Kawanami does not disclose that the menu setting means is operated by the user and does not disclose setting switch that operates on the predetermined menu displayed on said display means to select a desired setting item from among a plurality of items of the predetermined menu displayed on said display means by said menu function control unit and setting a condition regarding the motion direction of the lens unit; and displaying an image picked up by said image pickup means. However, Shimizu discloses display 62 for displaying an image picked up by image sensor 2 (figure 1, column 4, lines 31-38). And Shimizu discloses a menu displayed on a display screen as a setting means to permit a user of a camera to operate thereupon to select various camera operating conditions from among a plurality of items displayed on a predetermined menu, such as the speed at which the focal length of the camera lens is moved when a zooming operation is performed, therefore a setting switch is inherently included in order to let the user to select various camera condition (column 5, lines 36-46). In view of the teaching in Shimizu, it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the menu of Kawanami so as to serve as a setting switch operated upon by a user for selecting a desired setting time among a plurality of items displayed on the predetermined menu and setting a condition regarding the motion direction of the lens unit in order to let the user to select a desired item.



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Regarding claim 2, Kawanami and Shimizu disclose that the lens group includes a magnification lens (Kawanami; 52) and the motion direction setting means comprises an operation switch (Kawanami; 63) capable of being operated by a user, and a change means (Kawanami; 64, 59) for changing the motion direction of the lens group relative to the rotation direction of the ring member in accordance with the operation of the operation switch (Kawanami; column 5, lines 20-65).

Regarding claim 3, Kawanami and Shimizu discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; column 5, lines 25).

Regarding claim 4, Kawanami and Shimizu discloses that ring member is disposed concentrically about an optical axis of the lens group (Kawanami; figure 5).

Regarding claim 5, Kawanami and Shimizu discloses that the lens group includes a magnification lens (Kawanami; 52) and the motion direction setting means comprises memory means (Kawanami; 64) for storing motion direction information of the lens group relative to the rotation of the ring member, the motion direction being given by a user (Kawanami; switch 63), and a change means (Kawanami; 64, 59) for changing the motion direction of lens group in accordance with the motion direction information stored in the memory means.

Regarding claim 6, Kawanami and Shimizu discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; column 5, lines 25).

Regarding claims 7 and 13, Kawanami and Shimizu discloses that ring member is disposed concentrically about an optical axis of the lens group (Kawanami; figure 5).

Regarding claim 9, Kawanami and Shimizu discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; column 5, lines 25).

Regarding claim 10, Kawanami and Shimizu discloses that ring member is disposed concentrically about an optical axis of the lens group (Kawanami; figure 5).

7. Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (US 5,159,370) in view of Haraguchi et al. (US 5,475,456).

Regarding claim 42, Takahashi discloses an image pickup apparatus comprising a ring member (51) disposed concentrically about a lens optical axis of a lens unit, a detection means for detecting a change amount of rotation of the ring member (column 9, lines 1-14), a control means for determining motion direction and speed of a magnification lens group in accordance with an output of the detection means and performing motion/stop control of the magnification lens group along the optical axis (column 9, lines 15-49).

Takahashi does not disclose an inhibition means for inhibiting said control means performing the motion/stop control during a predetermined period when said detection means detects a stop of rotation of the ring member, and for causing said control means to continue movement of said magnification lens group when said detection means rotation of said ring

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member during the predetermined period. However, Haraguchi et al. disclose inhibiting a magnification lens from stopping during a predetermined period after a stop command has been issued so that the lens can be stopped more precisely at a desired terminal position (column 23, line 58 through column 24, line 9). In view of the teaching in Haraguchi et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to provide in Takahashi an inhibition means for inhibiting the magnification lens to stop during a predetermined period in the state that said detection means does not detect the amount of rotation in order to more precisely perform the stopping operation.

Regarding claim 43, Takahashi discloses that the lens unit is removably and exchangeably mounted on a main body of the image pickup apparatus (column 2, line 46).

***Allowable Subject Matter***

8. Claims 14-28, 31-33, 35-37, 40-41, 48-50 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 14, 17, 26, the prior art of the record fails to show or fairly suggest an image pickup apparatus having a camera part and lens part detachably mounted on the camera part, comprising storing means, provided in said camera part, for storing information of the response characteristic, said storing means being arranged so that said camera part holds the selected response characteristic throughout attaching/removing of said lens part and transmits the stored information of the response characteristic to said lens part attached to said camera part throughout attaching/removing thereof.

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Claims 15-16, 40 are allowable for the reason given respect to claim 14.

Claims 18-25, 41 are allowable for the reason given respect to claim 17.

Claims 27-28, 31-33, 35-37 are allowable for the reason given respect to claim 26.

Regarding claim 48, the prior art of the record fails to show or fairly suggest an image pickup apparatus having a magnification lens group, comprising control means for controlling said lens control means so as to automatically set a sensitivity of the motion start/stop control of the magnification lens group relative to a detection result of said detection means in accordance with a photographing state.

Claims 49-50 are allowable for the reason given respect to claim 48.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T NGUYEN whose telephone number is (703) 308-9297. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN LN  
8/9/04

  
NGOC-YEN VU  
PRIMARY EXAMINER